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MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			RIES, LAURIE ANNE	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**MAILED**

**FEB 27 2006**

**Technology Center 2100**

Application Number: 09/848,430  
Filing Date: May 04, 2001  
Appellant(s): KREULEN ET AL.

Frederick E. Cooperrider, Esq.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 29 November 2005 appealing from  
the Office action mailed 29 June 2005

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

### **(8) Evidence Relied Upon**

5,895,470	PIROLI	4-1999
2002/0165707 A1	CALL	11-2002
5,950,19	COHEN	9-1999

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 9, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirolli (U.S. Patent 5,895,470) in view of Call (U.S. Publication 2002/0165707 A1).

As per claims 5, 9, and 13, Pirolli discloses an apparatus, program instructions and method of converting, organizing, and representing in a computer memory a document corpus containing an ordered number of documents (See Pirolli, Column 7,

lines 35-39). Pirolli does not disclose expressly developing a first uninterrupted listing of integers to correspond to an occurrence of terms in the document corpus. Call discloses developing an uninterrupted array of integers corresponding to an occurrence of terms (See Call, Figure 1, element 135, and Page 3, paragraph 0029). Pirolli and Call are analogous art because they are from the same field of endeavor of processing electronic text data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the array of integers corresponding to an occurrence of terms of Call with the method of Pirolli. The motivation for doing so would have been to permit more efficient execution of processing functions of the type typically performed by data processors (See Call, Page 1, paragraph 0010). Therefore, it would have been obvious to combine Call with Pirolli for the benefit of permitting more efficient execution of processing functions of the type typically performed by data processors to obtain the invention as specified in claims 5, 9, and 13.

As per claim 15, Pirolli discloses data converter for organizing and representing in a computer memory a document corpus containing an ordered number of documents, for use by a data mining applications program requiring occurrence-of-terms data (See Pirolli, Column 13, lines 18-46), the representation to be based on terms in a dictionary previously developed for the document corpus and where each term in the dictionary has associated therewith a corresponding unique integer (See Pirolli, Pages 6-7, paragraphs 0076-0083). ). Pirolli also discloses means for developing an uninterrupted listing of the unique integers to correspond to the occurrence of the dictionary terms in the document corpus (See Pirolli, Column 7, lines 33-62). Pirolli does not disclose

expressly developing an uninterrupted listing of integers to correspond to an occurrence of dictionary terms in the document corpus. Call discloses developing an uninterrupted array of integers corresponding to an occurrence of terms (See Call, Figure 1, element 135, and Page 3, paragraph 0029). Pirolli and Call are analogous art because they are from the same field of endeavor of processing electronic text data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the array of integers corresponding to an occurrence of terms of Call with the method of Pirolli. The motivation for doing so would have been to permit more efficient execution of processing functions of the type typically performed by data processors (See Call, Page 1, paragraph 0010). Therefore, it would have been obvious to combine Call with Pirolli for the benefit of permitting more efficient execution of processing functions of the type typically performed by data processors to obtain the invention as specified in claim 15.

As per claim 1, Pirolli discloses method of converting a document corpus containing an ordered number of documents into a compact representation in memory of occurrence data (See Pirolli, Column 7, lines 35-39). Pirolli does not disclose expressly developing a first vector for the entire document corpus, the first vector being a listing of integers corresponding to terms in the documents such that each document in the document corpus is sequentially represented in the listing. Call discloses developing an uninterrupted array of integers corresponding to an occurrence of terms (See Call, Figure 1, element 135, and Page 3, paragraph 0029). Pirolli and Call are analogous art because they are from the same field of endeavor of processing

electronic text data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the array of integers corresponding to an occurrence of terms of Call with the method of Pirolli. The motivation for doing so would have been to permit more efficient execution of processing functions of the type typically performed by data processors (See Call, Page 1, paragraph 0010). Therefore, it would have been obvious to combine Call with Pirolli for the benefit of permitting more efficient execution of processing functions of the type typically performed by data processors to obtain the invention as specified in claim 1.

As per claim 17, Pirolli and Call disclose the limitations of claim 15 as described above. Pirolli also discloses developing an uninterrupted listing for the entire document corpus, the uninterrupted listing containing, in sequence, the location of each corresponding document in the first uninterrupted listing (See Pirolli, Page 5, paragraph 0051).

As per claims 3, 7, and 11, Pirolli and Call disclose the limitations of claims 1, 5, and 9 as described above. Call also discloses rearranging, or sorting, in the first vector, the order of the unique integers within the data for each document so that the terms are in alphabetical order which would cause all identical unique integers to be adjacent (See Call, Page 5, paragraph 0051). Pirolli and Call are analogous art because they are from the same field of endeavor of processing electronic text data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the sorting of terms of Call with the method of Pirolli and Call. The motivation for doing so would have been to allow the terms to be displayed in sorted order (See Call, Page 5,

paragraph 0051). Therefore, it would have been obvious to combine Call with Pirolli and Call for the benefit of allowing the terms to be displayed in sorted order to obtain the invention as specified in claims 3, 7, and 11.

As per claims 18, 20, 22, and 24, Pirolli and Call disclose the limitations of claims 1, 5, 9 and 13 as described above. Call also discloses developing a dictionary, or term table, including terms contained in the document corpus and associating with each dictionary term, an integer to be uniquely corresponding to the dictionary term, the uniquely corresponding integers used in the first uninterrupted listing (See Call, Pages 6-7, paragraphs 0076-0083). Pirolli and Call are analogous art because they are from the same field of endeavor of processing electronic text data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the term table of Call with the method of Pirolli and Call. The motivation for doing so would have been to allow a user to search the text for a term matching a particular term (See Call, Page 7, paragraph 0082). Therefore, it would have been obvious to combine Call with Pirolli and Call for the benefit of allowing a user to search the text for a term matching a particular term to obtain the invention as specified in claims 18, 20, 22, and 24.

As per claims 19, 21, 23 and 25, Pirolli and Call disclose the limitations of claims 1, 5, 9 and 13 as described above. Pirolli also discloses developing a second uninterrupted listing for the entire document corpus, the second uninterrupted listing containing, in sequence, the location of each corresponding document in the first uninterrupted listing (See Pirolli, Column 7, lines 33-62).



Claims 2, 6, 10, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirolli (U.S. Patent 5,895,470) in view of Call (U.S. Publication 2002/0165707 A1) as applied to claims 15, 19, 21, 23, and 25 above, and further in view of Cohen (U.S. Patent 5,950,189).

As per claims 2, 6, 10, 14, and 16, Pirolli and Call disclose the limitations of claims 15, 19, 21, 23, and 25 as described above. Pirolli and Call do not disclose expressly developing a third uninterrupted listing for the entire document corpus, the third uninterrupted listing containing a sequential listing of floating point multipliers, each floating point multiplier representing a document normalization factor for a corresponding document in the document corpus. Cohen discloses developing a normalized vector containing floating point multipliers (See Cohen, Column 11, lines 1-39). Pirolli, Call and Cohen are analogous art because they are from the same field of endeavor of processing electronic text data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the normalized vectors of Cohen with the method of Pirolli and Call. The motivation for doing so would have been to accurately identify the high matches of document terms and their values (See Cohen, Column 9, lines 28-30). Therefore, it would have been obvious to combine Cohen with Pirolli and Call for the benefit of accurately identifying the high matches of document terms and their values to obtain the invention as specified in claims 2, 6, 10, 14 and 16.

Claims 4, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirolli (U.S. Patent 5,895,470) in view of Call (U.S. Publication 2002/0165707 A1) and Cohen (U.S. Patent 5,950,189) as applied to claims 2, 6, and 10 above, and further in view of Jagadish (U.S. Patent 6,401,088 B1).

As per claims 4, 8, and 12, Pirolli, Call and Cohen disclose the limitations of claims 2, 6, and 10 as described above. Pirolli, Call and Cohen do not disclose expressly that the normalization factor is the number of occurrences of a specific term in the document that represents the reciprocal of the square root of the sum of squares of all term occurrences in the document. Jagadish discloses calculating a normalization factor using an algorithm that can be refined to determine the number of term occurrences in a document (See Jagadish, Figure 6, and Column 8, lines 14-46). Pirolli, Call, Cohen and Jagadish are analogous art because they are from the same field of endeavor of processing electronic text data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the normalization factor of Jagadish with the method of Pirolli, Call and Cohen. The motivation for doing so would have been to obtain a quick estimate of the number of times a particular substring, or term, occurs (See Jagadish, Column 1, lines 23-24). Therefore, it would have been obvious to combine Jagadish with Pirolli, Call and Cohen for the benefit of obtaining a quick estimate of the number of times a particular substring, or term, occurs to obtain the invention as specified in claims 4, 8 and 12.

**(10) Response to Argument**

Beginning on page 5 of the appeal brief (hereinafter the brief), Appellant argues the following issues, which are accordingly addressed below.

**Appellant argues on Pages 5-9 of the brief that Pirolli in combination with Call fails to teach a document corpus having a precisely defined order of documents.**

The Office respectfully disagrees. The plain meaning of an “order” as defined in The American Heritage College Dictionary is “a condition of logical or comprehensible arrangement among the separate elements of a group (See The American Heritage College Dictionary, Page 979, definition of “order”, Exhibit A attached). Pirolli teaches a system for categorizing documents in a linked collection of documents (See Pirolli, Abstract). Pirolli’s linked document collection is represented in reference to web pages forming a website, such as those found of the World Wide Web (See Pirolli, Column 1, lines 65-67, and Column 2, lines 1-7). As is known in the art, a website contains a home page, which frequently serves as a table of contents, with links to various subsequent pages based upon content (See Microsoft Computer Dictionary, Third Edition, Page 506, definition of “website”, Exhibit B attached). It would have been obvious to one of ordinary skill in the art at the time of the invention to define a website, such as taught by Pirolli, as a collection of documents, or web pages, having a precisely-defined order by virtue of their structure having a home or main page and subsequent pages linked based on content. As such, the Office maintains that a

website as taught by Pirolli is indicative of a document corpus having a precisely defined order of documents.

**Appellant's argues on Page 11 of the brief that the combination of Call with Pirolli is improper.**

The Office respectfully disagrees. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

**Appellant's argues on Pages 9-13 of the brief that Pirolli and Call are nonanalogous art.**

The Office respectfully disagrees. It has been held that a prior art reference must either be in the field of Appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the Applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Call and Pirolli are from the same field of endeavor of extracting and analyzing information from electronic documents (See Pirolli, Abstract, lines 1-9, and Call, Abstract, lines 1-14).

**Appellant argues on Pages 14-15 of the brief that Pirolli in combination with Call and Cohen fail to teach normalization indicating similarity within a document.**

The Office respectfully disagrees. Appellant notes that Cohen teaches normalization indicating similarity between two documents, as stated on Page 4 of the brief. The Office maintains that the teachings of Cohen as applied to normalization between multiple documents would have provided the suggestion to one of ordinary skill in the art at the time of the invention to apply the same teachings within a single document. The Office recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation would have been to accurately identify the number of matches of document terms within a document and the values of said terms (See Cohen, Column 9, lines 28-30).

**Appellant's arguments with respect to claims 3-4, 7-8, and 11-12 have been fully considered and are persuasive.**

The rejection of claims 3-4, 7-8, and 11-12 has been withdrawn, however, claims 3-4, 7-8, and 11-12 are objected to as being dependent upon rejected base claims.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Laurie Ries



Conferees:

William L. Bashore

*William L. Bashore*  
**WILLIAM BASHORE**  
**PRIMARY EXAMINER**  
*2/17/2006*

  
Heather Herndon

  
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**STEPHEN HONG**  
**SUPERVISORY PATENT EXAMINER**

Exhibit A

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**•a-to-ry** (*ôr'ă-tôr'ē, -tôr'ē, ôr'ē*) *n.*, *pl.* *-ries* 1. A place, as a rayer, such as a chapel. 2. also **Oratory** a. A Roman Catholic religious society of secular priests founded in 1575 by Saint Philip Neri. b. A branch or church of this society. [ME *oratorie* < OFr. *oratorium*, place of prayer < Lat., neut. of *oratorius*, for *aying* < *orare*, to pray.]

**•orb** (*ôr'b*) *n.* 1. A sphere or spherical object. 2a. A celestial body, as the sun or moon. b. *Archaic* The earth. 3. One of a series of concentric transparent spheres thought by ancient and medieval astronomers to revolve about the earth and carry the celestial spheres. 4. A globe surmounted by a cross, used as a symbol of martial power and justice. 5. An eye or eyeball. 6. *Archaic* endeavor or activity; a province. ♦ *v.* **orbed**, **orb-ing**, **orbs**. 1. To shape into a circle or sphere. 2. *Archaic* To encircle. —*intr.* *Archaic* To move in an orbit. [ME *orbe*, *orbi* < Fr. < Lat. *orbis*, circle, disk, orbit.]

**•orbic-lar** (*ôr-bîk'ya-lâr*) *adj.* Circular or spherical. [ME *orbic-lar* < OFr. *orbiculaire* < LLat. *orbicularis* < Lat. *orbiculus*, dim. of *orbis*, circle, disk.] —**•orbic-u-lar'i-ty** (*-lâr'î-tē*) *n.* —**•orbic-u-lar-ly** *adv.*

**•orbic-u-late** (*ôr-bîk'ya-lît, -lât'*) also **•orbic-u-lat-ed** (*ôr-bîk'ya-lât'id*) *adj.* Orbicular. [Lat. *orbiculatus* < *orbiculus*, dim. of *orbis*, circle, disk.] —**•orbic-u-late-ly** *adv.*

**•or-bi-son** (*ôr-bî-sən*), Roy 1936–88. Amer. singer and songwriter noted for his smooth tenor voice and haunting ballads.

**•or-bit** (*ôr-bit*) *n.* 1a. The path of a celestial body or an artificial satellite as it revolves around another body. b. One complete revolution of such a body. 2. The path of a body in a field of force surrounding another body; for example, the movement of an electron in relation to a nucleus. 3a. A range of activity, influence, or knowledge. b. A range of control or influence. 4. of two bony cavities in the skull containing an eye and its structures; an eye socket. ♦ *v.* **-bit-ed**, **-bit-ing**, **-bits**. 1. To put into an orbit. 2. To revolve around (a center of ion). —*intr.* To move in an orbit. [ME *orbite*, eye socket < Lat. *orbita*, orbit, prob. < *orbis*.]

**•or-bi-tal** (*ôr-bî-tl*) *adj.* Of or relating to an orbit. ♦ *n.* The wave motion of an electron in an atom or molecule, indicating the probable location.

**•or-bi-tar** (*ôr-bî-târ*) *n.* Something that orbits, esp. a spacecraft orbiting a planet or moon without landing on it.

**•or-ca** (*ôr'kă*) *n.* See **killer whale**. [Lat. *orca*, whale, prob. alteration of *orux*, *orug-*, pickax, a kind of large fish or whale, prob. *in*, to dig.]

**•orchestra** (*ôr'chôr'd*) *n.* 1. An area of land devoted to the cultivation of fruit or nut trees. 2. The trees cultivated in such an area. [ME *orcheard*, alteration of *ortgeard*: prob. *wyrt*, wort, plant; *geard*, yard; see *gher-* in App.]

**•grass** *n.* A Eurasian grass (*Dactylis glomerata*) widely used in pastures.

**•dist** (*ôr'chôr-dist*) *n.* One who owns or cultivates an orchard.

**•tra** (*ôr'kî-stră, -kës'tră*) *n.* 1. *Music* a. A large group of instruments who play together on various instruments, usu. including woodwinds, and brass and percussion instruments. b. Instruments played by such a group. 2. The area in a theater where the musicians sit, immediately in front of the stage. 3a. The front section of seats nearest the heater. b. The entire main floor of a theater. 4. A semicircle in front of the stage used by the chorus in ancient Greece. [Lat. *orchestra*, space in front of the stage in Greek where the chorus performed < Gk. *orkhêstra*, to dance.] —**•orchestral** (*ôr-kës'trāl*) *adj.* —**•orchestral-ly** *adv.*

**•ate** (*ôr'kî-strât'*) *tr.v.* **-trat-ed**, **-trat-ing**, **-trates** 1. To arrange (music) for performance by an orchestra. 2. To arrange or control the elements of, as to achieve a desired result. —**•orchestral-ly** *adv.*

**•tion** (*ôr'kî-strâ'shən*) *n.* 1a. A musical composition arranged for orchestra. b. Arrangement of music for performance by an orchestra. 2. Arrangement or control.

**•kid** (*ôr'kîd*) *n.* 1a. A member of the orchid family. b. The young of these plants, esp. one cultivated for ornament. 2. A light purple, from grayish to purplish pink to strong purple. [Lat. *Orchideae*, former family name < NLat. *orchis*, orchid < Lat. *orchis*, a kind of orchid < Gk. *orkhis*, orchid (< the shape of its tubers).] —**•orchid** *adj.*

**•ous** (*ôr'kî-dă'shəs*) *adj.* 1. Of, relating to, or characteristic of the orchid family. 2. Suggesting ostentatious luxury; showy. [Lat. *Orchidaceae*, family name < Lat. *orchis*, orchid.]

**•n.** A large family of epiphytic or terrestrial perennial plants, found chiefly in the tropics and subtropics, characterized by bilaterally symmetrical, showy flowers, and dustlike seeds.

**•my** (*ôr'kê-êk'tô-mē*) or **•orchid-dec-to-my** (*-kî-mies*) *n.* Surgical removal of one or both testes. [Gk. *orchid-* + *-ectomy*.]

**•chil** also **•archil** (*âr'ē*) *n.* 1. Any of several li-

berly of the genera *Rocella* and *Lecanora*, from which a dye is obtained. 2. The violet dyestuff obtained from any of these lichens. [ME *orchell*, ult. < O Catalan *orxella*, perh. of Mozarabic *orxella*.]

**•orchid** (*ôr'kîd*) *n.* Any of numerous orchids of the genus *Orchis*, having magenta, white, or magenta-spotted flowers. [Lat., or *ORCHID*.]

**•or-kas** (*ôr'käs*) *n.* *Roman Mythology* 1. The world of the dead; the underworld. 2. Pluto, the god of the underworld.

**•or-dain** (*ôr-dân'*) *tr.v.* **-dained**, **-daining**, **-dains** 1a. To invest with ministerial or priestly authority; confer holy orders on. b. To authorize as a rabbi. 2. To order by virtue of superior authority; to enact. 3. To prearrange unalterably; predestine: by *ordained*. See *Syns* at *dictate*. [ME *ordeinen* < OFr. *ordener*, *ordene* < Lat. *ordinare*, to organize, appoint to office < *ordō*, *ordo*.] —**•or-dain'er** *n.* —**•or-dain'ment** *n.*

**•or-del'** (*ôr-del'*) *n.* 1. A difficult or painful experience, esp. one that severely tests character or endurance. 2. A method of trial in which the accused is subjected to physically painful or dangerous ordeals, the result being regarded as a divine judgment of guilt or innocence. [Alteration (influenced by *DEAL*) of ME *ordal*, trial by ordeal < OE *ordal*.]

**•or-dar** (*ôr-dâr*) *n.* 1. A condition of logical or comprehensible arrangement among the separate elements of a group. 2a. A condition of methodical or prescribed arrangement among component parts, such that proper functioning or appearance is achieved. b. A condition or state in general: *in good working order*. 3a. The established system of social organization. b. A condition in which freedom from disorder or disruption is maintained through reliance on established authority. 4. A sequence or arrangement of successive things: *changed the order of the files*. 5. The prescribed form or customary procedure: *the order of worship*. 6. An authoritative indication to be obeyed; a command or direction. 7a. A command given by a superior military officer requiring obedience in the execution of a task. b. **orders** Formal written instructions to report for military duty at a specified time and place. 8a. A commission or instruction to buy, sell, or supply something. b. That which is supplied, bought, or sold. 9a. A request made by a customer at a restaurant for a portion of food. b. The food requested. 10. Law A direction or command delivered by a court or other adjudicative body and entered into the record but not necessarily included in the final judgment or verdict. 11. *Ecclesiastical* a. Any of several grades of the Christian ministry: *the order of priesthood*. b. The rank of an ordained Christian minister or priest. Often used in the plural. c. The sacrament or rite of ordination. Often used in the plural. 12. Any of the nine grades or choirs of angels. 13. A group of persons living under a religious rule: *Order of Saint Benedict*. 14. An organization of people united by a common fraternal bond or social aim. 15. A group of people upon whom a government or sovereign has formally conferred honor for unusual service or merit, entitling them to wear a special insignia: *the Order of the Garter*. b. The insignia worn by such people. 16. A social class. Often used in the plural: *the lower orders*. 17. A class defined by the common attributes of its members; a kind. 18. Degree of quality or importance: *rank: poetry of a high order*. 19. *Architecture* a. Any of several styles of classical architecture characterized by type of column and entablature employed. b. A style of building: *a cathedral of the Gothic order*. 20. *Biology* A taxonomic category of organisms ranking above a family and below a class. See *table at taxonomy*. 21. *Mathematics* a. The sum of the exponents to which the variables in a term are raised; degree. b. The number of successive differentiations to be performed. c. The number of elements in a finite group. d. The number of rows or columns in a determinant or matrix. ♦ *v.* **-dered**, **-der-ing**, **-ders** —*tr.* 1. To issue a command or instruction to. 2. To give a command or instruction to: *ordered a recount of the ballots*. 3. To direct to proceed as specified: *ordered them off the property*. 4. To give an order for; request to be supplied with. 5. To put into a methodical, systematic arrangement. See *Syns* at *arrange*. 6. To predestine; ordain. —*intr.* To give an order or orders; request that something be done or supplied. —**idioms:** *in order* that So that. *in order to* For the purpose of. *in short order* With no delay; quickly. *on order* Requested but not yet delivered. *on the order of* 1. Of a kind or fashion similar to; like. 2. Approximately; about. *to order* According to the buyer's specifications. [ME *ordre* < OFr., var. of *ordene* < Lat. *ordō, ordin-*.] —**•or-der'er** *n.*

**•order arms** *n.* 1. A position in the military manual of arms in which the rifle is held vertically by the right leg, its butt resting on the ground. 2. A command to assume order arms.

**•or-der-ly** (*ôr-dâr-lē*) *adj.* 1a. Free from disorder; neat. b. Having a systematic arrangement. 2. Marked by or adhering to method or system. 3. Devoid of violence or disruption; peaceful. ♦ *n.*, *pl.* *-lies* 1. An attendant who does routine nonmedical work in a hospital. 2. A soldier assigned to attend a superior officer. ♦ *adv.* Systematically; regularly. —**•or-der-li-ness** *n.*

**•order of battle** *n.*, *pl.* **orders of battle** The identification, command, structure, strength, and disposition of personnel, equipment, and units of an armed force.

**•order of business** *n.*, *pl.* **orders of business** A matter, such as

a task, that must be addressed.

**order of magnitude** *n.*, *pl.* **orders of magnitude** 1. An estimate of size or magnitude expressed as a power of ten. 2. A range of values between a designated lower value and an upper value ten times as large.

**order of the day** *n.*, *pl.* **orders of the day** 1. The business to be considered or done by a legislature or other body on a particular day. Often used in the plural. 2. The characteristic or most significant aspect or activity.

**•or-di-nal** (*ôr'dn-əl*) *adj.* 1. Being of a specified position in a numbered series: *an ordinal rank of seventh*. 2. Of or relating to a taxonomic order. ♦ *n.* 1. An ordinal number. 2. *Ecclesiastical* a. A book of instructions for daily services. b. A book of forms for ordination. [ME *ordinal*, orderly, regular < LLat. *ordinalis*, ordinal < Lat. *ordō, ordin-*, order.]

**ordinal number** *n.* A number indicating position in a series or order, such as first (1st), second (2nd), and third (3rd).

**•or-di-nance** (*ôr'dn-əns*) *n.* 1. An authoritative command or order. 2. A custom or practice established by long usage. 3. A Christian rite, esp. the Eucharist. 4. A statute or regulation, esp. one enacted by a city government. [ME *ordinaunce* < OFr. *ordenance* < Med.Lat. *ordinantia* < Lat. *ordinans, ordinant-*, pr. part. of *ordinare*, to ordain < *ordō, ordin-*, order.]

**•or-di-nand** (*ôr'dn-ənd*) *n.* *Ecclesiastical* A person who is a candidate for ordination. [Lat. *ordinandus*, gerundive of *ordinare*, to set in place, appoint. See *ORDINATE*.]

**•or-di-nar-i-ly** (*ôr'dn-âr'ē-lē, ôr'dn-ēr'ē*) *adv.* 1. As a general rule; usually. 2. In the common or usual manner. 3. To the usual extent or degree: *an ordinarily small profit*.

**•or-di-nar-y** (*ôr'dn-ēr'ē*) *adj.* 1. Commonly encountered; usual. 2a. Of no exceptional ability, degree, or quality; average. b. Of inferior quality; second-rate. 3. Having immediate rather than delegated jurisdiction, as a judge. 4. *Mathematics* Designating a differential equation containing no more than one independent variable. ♦ *n.*, *pl.* *-ies* 1. The usual or normal condition or course of events. 2. Law The judge of a probate court in some states of the United States. 3. often **Ordinary** *Ecclesiastical* a. The part of the Mass that remains unchanged from day to day. b. A division of the Roman Breviary containing the unchangeable parts of the office other than the Psalms. c. A cleric, such as the residential bishop of a diocese, with ordinary jurisdiction over a specified territory. 4. *Heraldry* One of the simplest and commonest charges, such as the bend and the cross. 5. *Chiefly British* a. A complete meal provided at a fixed price. b. A tavern or an inn providing such a meal. [ME *ordinarie* < OFr. < Lat. *ordinarius* < *ordō, ordin-*, order.] —**•or-di-nar'i-ness** *n.*

**ordinary seaman** *n.* A seaman of the lowest grade in the merchant marine.

**•or-di-nate** (*ôr'dn-î-tāt'*) *adj.* Arranged in regular rows, as the spots on the wings of an insect. ♦ *n.* *Symbol* y The plane Cartesian coordinate representing the distance from a specified point to the x-axis, measured parallel to the y-axis. [ME, properly ordered < Lat. *ordinatus*, p. part. of *ordinare*, to set in order < *ordō, ordin-*, order.]

**•or-di-na-tion** (*ôr'dn-ā'shən*) *n.* 1. The act of ordaining or the state of being ordained. 2. *Ecclesiastical* The ceremony of consecration to the ministry. 3. An arrangement or ordering.

**ordn.** *abbr.* ordnance

**ord-nance** (*ôr'dn-əns*) *n.* 1. Military materiel, such as weapons, ammunition, combat vehicles, and equipment. 2. The branch of an armed force that procures, maintains, and issues such materiel. 3. Cannon; artillery. [ME *ordnaunce*, var. of *ordinaunce*, order, military provision. See *ORDINANCE*.]

**•or-do** (*ôr'dō*) *n.*, *pl.* **-di-nes** (*-dă-nēz'*) or **-dos** *Roman Catholic Church* An annual calendar containing instructions for the Mass and office to be celebrated on each day of the year. [Med.Lat. *ordō* < Lat., order.]

**•or-don-nance** (*ôr'dn-əns, ôr'dō-nāns'*) *n.* The arrangement of elements in a literary or artistic work or an architectural plan. [Fr., var. of OFr. *ordenance*, an arranging. See *ORDINANCE*.]

**•Or-do-vi-cian** (*ôr'dă-vîsh'ən*) *adj.* Of or belonging to the geologic time of the second period of the Paleozoic Era, marked by the appearance of primitive fishes. See *table at geologic time*. ♦ *n.* The Ordovician Period or its deposits. [Lat. *Ordovicēs*, an ancient Celtic tribe of Wales < Celt. *Ordovices*.]

**•or-dure** (*ôr'djər*) *n.* 1. Excrement; dung. 2. Something morally offensive; filth. [ME < OFr. < *ord*, filthy < Lat. *horridus*, frightful < *horrere*, to shudder.]

**•Or-dzo-ni-kid-ze** (*ôr'jōn-î-kîd'zə, ər-jə-nî-kyē'dzî*) See **Vladikavkaz**.

**ore** (*ôr, ôr*) *n.* A mineral or an aggregate of minerals from which a valuable constituent, esp. a metal, can be profitably mined or extracted. [ME < OE *ora* and < OE *ār*, brass, copper, bronze.]

**Ore.** *abbr.* Oregon

**•ore-ad** (*ôr'ē-ād'*, *ôr'ē*) *n.* *Greek Mythology* Any of a group of mountain nymphs. [Lat. *Orēas, Orēad-* < Gk. *Oreias* < *oreios*, of a mountain < *oros*, mountain.]

**•Or-e-bro** (*ôr'ē-brō'*) A city of S-central Sweden W of Stockholm. Pop. 123,188.

**•oreg-a-no** (*ôr-rēg'ə-nō', ô-rēg'ē*) *n.* A perennial Eurasian herb (*Origanum vulgare*) of the mint family, having aromatic leaves

ă	pat	oi	boy
ā	pay	ou	out
ār	care	ōō	took
ā	father	ōō	boot
ē	pet	ū	cut
ē	be	ūr	urge
ī	pit	th	thin
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ō	toe	ə	about
ō	paw		item

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' (secondary), as in  
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and design of the site. *Also called* webmistress, webweaver.

**webmistress** \web'mis-trəs\ *n.* See webmaster.

**Web page** \web'pāj\ *n.* A document on the World Wide Web. A Web page consists of an HTML file, with associated files for graphics and scripts, in a particular directory on a particular machine (and thus identifiable by a URL). Usually a Web page contains links to other Web pages. See also URL.

**Web phone** \web'fōn\ *n.* See Internet telephone.

**Web server** \web'sər'vər\ *n.* See HTTP server.

**Web site** \web'sīt\ *n.* A group of related HTML documents and associated files, scripts, and databases that is served up by an HTTP server on the World Wide Web. The HTML documents in a Web site generally cover one or more related topics and are interconnected through hyperlinks. Most Web sites have a home page as their starting point, which frequently functions as a table of contents for the site. Many large organizations, such as corporations, will have one or more HTTP servers dedicated to a single Web site. However, an HTTP server can also serve several small Web sites, such as those owned by individuals. Users need a Web browser and an Internet connection to access a Web site. See also home page, HTML, HTTP server (definition 1), Web browser.

**Web terminal** \web'tər'mə-nəl\ *n.* A system containing a central processing unit (CPU), RAM, a high-speed modem or other means of connecting to the Internet, and powerful video graphics, but no hard disk, intended to be used solely as a client to the World Wide Web rather than as a general-purpose computer. *Also called* network computer.

**Web TV** \web'T-V\ *n.* A system for accessing the World Wide Web and displaying Web pages on a television screen using a set-top box.

**webweaver** \web'wē'vər\ *n.* See webmaster.

**webzine** \web'zēn\ *n.* An electronic publication distributed primarily through the World Wide Web, rather than as an ink-on-paper magazine. See also ezine.

**weighted code** \wā'təd kōd\ *n.* A data representation code in which each bit position has a specified inherent value, which might or might not be

included in the interpretation of the data, depending on whether the bit is on or off.

**welcome page** \wel'kəm pāj\ *n.* See home page.

**WELL** \wel, W-E'L-L\ *n.* Acronym for **Whole Earth 'Electronic Link**. A conferencing system based in San Francisco, California, that is accessible through the Internet and through dial-up access points in many major cities. The WELL attracts many computer professionals, along with other people who enjoy participating in one of the Internet's most successful virtual communities. Because of the number of journalists and other prominent people who participate in the WELL, it has substantial influence beyond its own relatively small number of subscribers.

**well-behaved** \wel'bē-hāvd\ *adj.* 1. Of, pertaining to, or characteristic of a program that performs properly even when given extreme or erroneous input values. 2. Obeying the rules of a particular programming environment.

**well-mannered** \wel'man'ərd\ *adj.* See well-behaved.

**wetware** \wet'wār\ *n.* Slang for living beings and their brains, as part of the environment that also includes hardware and software.

**"what-if" evaluation** \hwət-if ē-val'yōō-ā'shən, wət-if\ *n.* A kind of spreadsheet evaluation in which certain values in a spreadsheet are changed in order to reveal the effects of those changes. For example, a spreadsheet user can use "what-if" evaluation to try different mortgage rates and terms to see the effect on monthly payments and on total interest paid over the life of a loan.

**whatis** \hwət-iz', wət-iz'\ *n.* 1. A UNIX utility for obtaining a summary of a keyword's documentation. See also man pages. 2. An Archie command for locating software whose description contains desired words.

**What You See Before You Get It** \hwət' yōō sē' bə-fōr' yōō get' it, wət'\ *adj.* See WYSBYGI.

**What You See Is What You Get** \hwət' yōō sē' iz hwət' yōō get', wət'\ *adj.* See WYSIWYG.

**wheel printer** \hwēl' prin'tər, wēl'\ *n.* See daisy-wheel printer.

**Whetstone** \hwet'stōn, wet'stōn\ *n.* A benchmark test that attempts to measure the speed and efficiency with which a computer carries out floating-

